



Federal Highway Administration Mobile Source Air Toxics

Transportation Research Board

ADC20(1) Analysis: Regional and Project Level Air Quality

January 9, 2018



U.S. Department of Transportation
Federal Highway Administration



Outline

- **Introduction:** FHWA MSAT Guidance
- **Recent Analysis:** Lessons Learned, Hypothetical and Framework
- **Discussion**



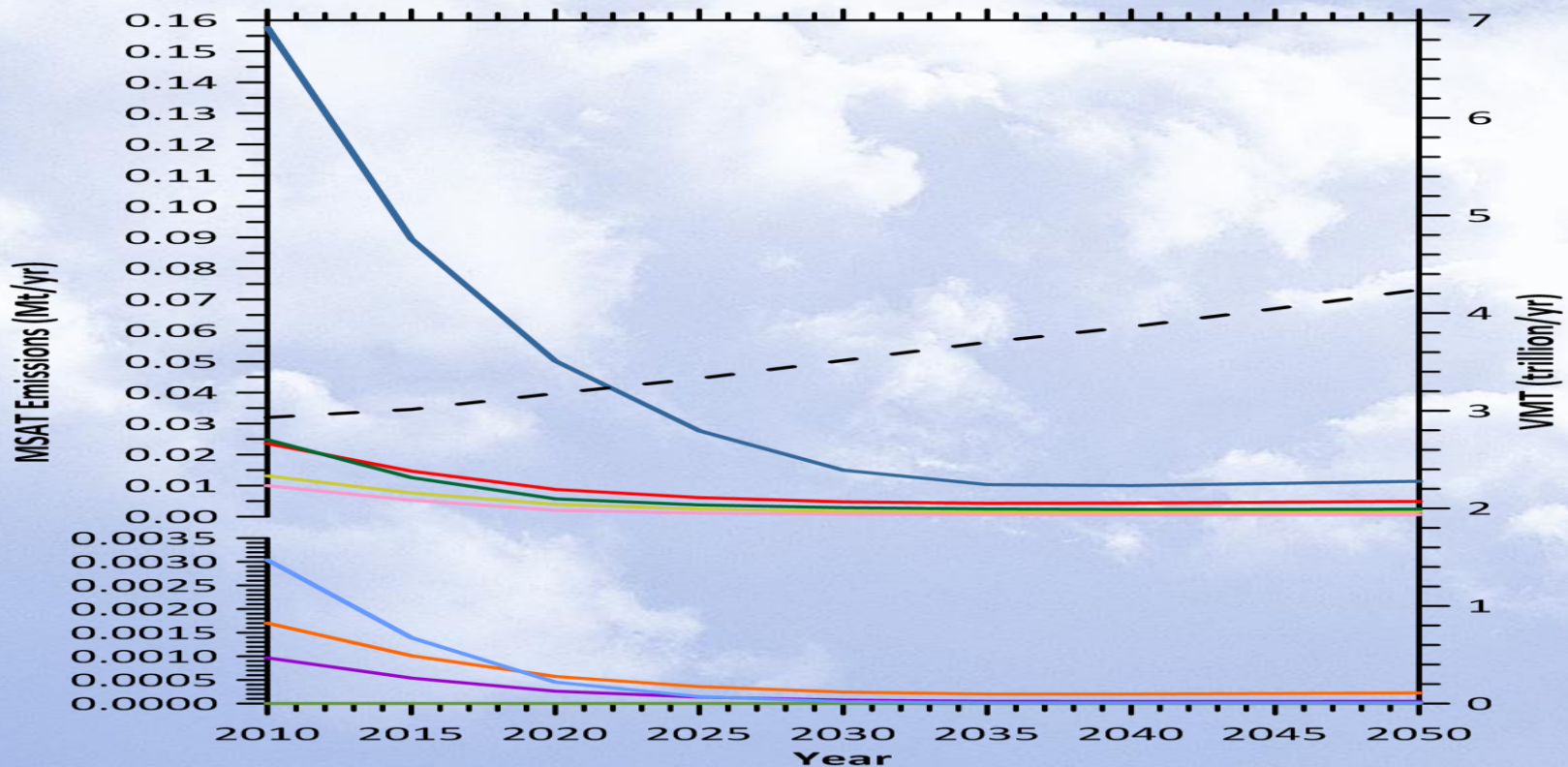
Introduction to FHWA MSAT Guidance

- Informs FHWA Division Offices on analyzing MSAT within the NEPA process for proposed highway projects
- First published in 2006 previously updated 2009, 2012 and 2016
- Three tiers of consideration – none, qualitative, quantitative for 140,000 – 150,000 AADT.
- Appendices (5) with prototype language, CEQ provisions, health effects research, mitigation strategies
- FAQs with additional technical guidance for quantitative analysis



Lessons Learned

- Using the Clean Air Act Title 5 Definition of 10/25 tpy largely successful
- MOVES analysis predicts dramatic emissions reductions are expected





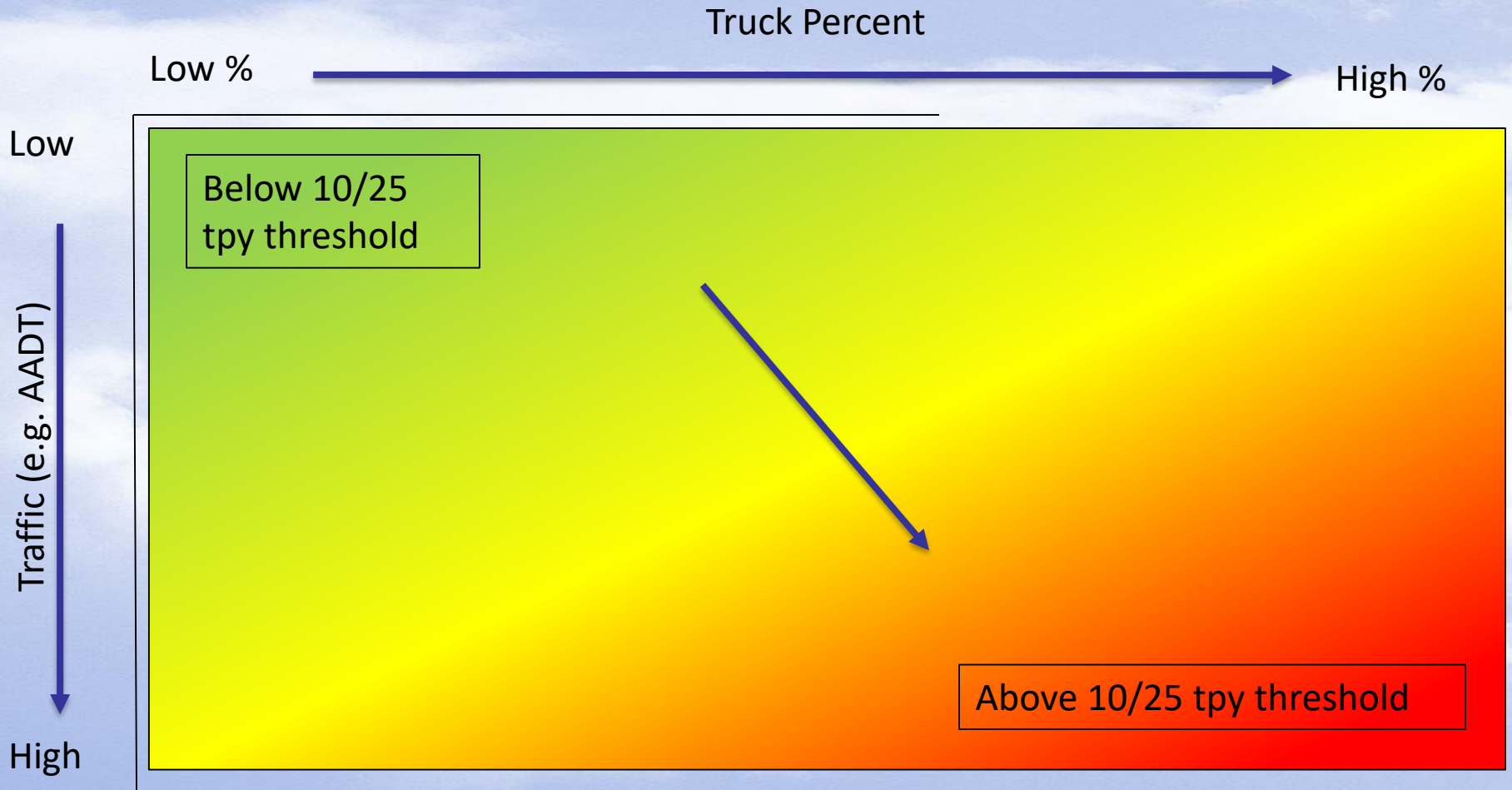
Hypothetical Project Results

15% HDV

	2015	2020	2030	2040
Mainline AADT	163,000	175,000	203,000	223,000
Emissions, tpy				
All MSATs	45.8	25.2	12.7	10.6
DPM	20.7	11.2	3.6	2.4
Mainline AADT equivalent to reach 10 or 25 tpy threshold				
All MSATs (25 tpy)	89,071	173,611	401,186	525,943
DPM (10 tpy)	78,744	156,250	571,831	929,167



Clean Air Act, Title 5 Definition Framework



EPA's Risk Management Framework

Risk Level

10^{-6} → 10^{-4}



< 1 in 1 million risk

> 100 in 1 million risk

Life Time Exposure to Risk from benzene 5 in 1 million

Modeled Risk from two Highway Project .08 to 2 in 1 million



Questions



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